## FINAL MEETING SUMMARY

#### HANFORD ADVISORY BOARD

# HEALTH, SAFETY, AND ENVIRONMENTAL PROTECTION COMMITTEE October 9, 2001 Richland, WA

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This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

## Introduction

Dan Simpson, Chair of the Health, Safety, and Environmental Protection (HSEP) Committee, opened the meeting. Attendees introduced themselves. Dan Simpson asked the committee to consider its role relative to the issues the Tri-Party Agreement (TPA) agencies requested the Hanford Advisory Board (HAB) pursue. He noted that discussion would include the work of the Cleanup Constraints and Challenges Team (C3T), which is a high level working group of the TPA agencies.

## **Committee Business**

The committee will consider the meeting summary from June approved unless there are any comments by the next committee call.

There were no new responses to advice for the committee to discuss.

## **Integrated Safety Management System (ISMS)**

The issue managers for Integrated Safety Management System (ISMS) are Keith Smith, Tim Takaro, and Joe Richards. Keith Smith noted that the HSEP Committee believes there should be a way to track if and how well ISMS is working, and the efforts of the TPA agencies to ensure its effectiveness.

Barb Wise distributed a handout listing discussion points for the issue. The committee had invited the Department of Energy – Richland Operations Office (DOE-RL) and Department of Energy – Office of River Protection (DOE-ORP) to attend the meeting

and dialogue with the committee. She distributed four handouts relevant to the ISMS discussion.

Doug Shoop, DOE-RL, presented a high level overview of ISMS, summarized in a handout copy of his presentation. He provided a chronological history of the evolution of ISMS, from the original recommendation by the Defense Nuclear Facilities Safety Board (DNFSB) in 1995 to integrate Environmental Safety & Health (ES&H) into work planning and execution up through the current efforts of DOE-RL, DOE-ORP, and its contractors. Essentially ISMS has existed since 1995 and is now contractually required of contractors.

Regulatory requirements are met through the "Laws, Regulations and DOE Directives" clause (a.k.a. "the laws clause"). The clause says that each contract will contain a List A (applicable federal, state, and local laws and regulations) and List B (applicable DOE Directives). Contractors are required to understand the regulatory requirements. The committee registered concern over why certain contracts include certain DOE orders and why some do not. Doug Shoop explained that for each contract, scope of work and associated hazards must be considered. Representatives from the vitrification facility project added that they chose to use standards instead of orders. For example, NQA1 is more applicable for a nuclear construction project, so the directive was incorporated into the contract with fee milestones. The contract is compliant with ISMS.

Doug Shoop explained that DOE Energy regulations are the framework for ISMS, which takes those requirements, the scope of work, and hazards and then develops the necessary documents to comply with that set of requirements. Those are continually assessed in many ways to determine whether requirements are adequately being met. DOE-RL and its contractors (Fluor, Bechtel, Hanford Environmental Health Foundation (HEHF), and Battelle) have recently updated all the applicable DOE Directives.

The Richland Integrated Management System (RIMS) evaluates how DOE-RL oversees its work. Contractors integrate implementing documents into their management systems, and then DOE-RL performs ISMS verifications. DOE-RL found opportunities for improvement for the contractors. The result was that the contractors now have a basic management system in place and are implementing ISMS. DOE-RL had four opportunities for improvement.

Al Hawkins commented on DOE-ORP's perspective. DOE-ORP also uses components of RIMS for training. Bechtel will begin Phase 1 verification in April. Within DOE-ORP, Harry Boston is the authority, the Program office is the point of contact, and Al Hawkins' office is responsible for the oversight, with the assistance of Carol Soon's expertise on setting parameters for the assessment. Al Hawkins has already indicated to Carol that BNI would like to have a public representative in Phase 1.

Doug Shoop commented that as part of last year's verification, DOE-RL chose to use an external assessment to provide a more independent review of how well DOE-RL had integrated ISMS.

A one-time verification will not find every issue; so another component of ISMS is contractor oversight. The contractor is responsible for Operational Awareness. There are also self and independent assessments. Almost all contractors have independent assessment groups, as required by DOE. These groups assess the contractor's assessment of the implementation of ISMS. DOE-RL also has Operational Awareness, whichy oversees the contractors' self and independent assessments. As appropriate and necessary, DOE-RL assesses and evaluates the contractors as well. Under the Facility Representatives program, people oversee the daily operations of the contractors – how they identify and resolve problems, for example. Through RIMS, the integrated evaluation planning process results in a plan that lists everything DOE-RL will assess for the contractor for the fiscal year.

There are several forms of DOE-HQ oversight of both DOE-RL and contractors. In summary, contractors assess themselves, DOE-RL assesses the contractors and itself, and there is also DOE oversight by regulators.

DOE HQ has five FY02 ISMS Performance Objectives, which are high-level expectations for the contractors to meet. Keith Benguiat, DOE-RL, commented that the workers have been involved with the Hanford Success Stories. Also, Hanford is one of the most improved sites in the DOE complex for safety – it ranked 8<sup>th</sup> in 1995 but this year it is 2<sup>nd</sup>.

The Voluntary Protection Program (VPP) has produced several awards for DOE at Hanford. Hanford has a good reputation for safety. Recently DOE-RL performed an investigation about whether employees felt comfortable raising safety concerns; by and large people felt like they could.

For ISMS to function well, it is expected that contractors, DOE-RL, and DOE-ORP use internal and external feedback mechanisms.

## Committee Discussion/Questions

- A committee member commented that it is important to understand that the scope of work and associated hazards drives which orders are applied. Not every order can be applied to every contract. DOE encourages contractors to find and apply the appropriate national standards.
- The committee discussed that one criterion for the effectiveness of ISMS is liability.
- A committee member voiced approval for including ISMS as contractual requirements for the contractors, but emphasized that the committee is interested in ensuring the regulations are implemented in the trenches. Doug Shoop said the objective of ISMS is to integrate ES&H into work planning cycles, so DOE-RL asks for worker participation as observers to make sure ISMS reaches the trenches. John Carlson, BNI, said BNI has been incorporating ISMS into the Waste Treatment Plant (WTP) project ever since taking it over. ISM teams go through the review process, identify the design to be made, analyze the hazards, analyze the components, and then

- select the appropriate standards to be applied. This process has been very successful so far
- What does DOE do upon discovering a contractor's shortfall? Doug Shoop answered that there is a "Killer clause" that allows the conditional payment of fee to ensure that the contractor fixes the real problems, not just the symptoms.
- Keith Smith reported that at the last President's Zero Accidents Council (PZAC) meeting, there had been discussion of an accident that occurred because the workers were under pressure because of time. Doug responded that DOE has not chosen to close out of the commitment 95-2 yet because they are not yet satisfied with ISMS implementation. It is an ongoing process. Additionally, the DNFSB also has site representatives. Keith Benguait explained that DNSSB get involved in all those aspects of ISMS and provide feedback.
- Joe Richards said he was happy to see that DMS criteria were used. Since DMS is a component of ISMS, it will be interesting to see how they interplay. It will also be interesting to see how all this flows down to already established ISMS. He said it seems that the environmental component is being incorporated, such as one component of Land Disposal Regulations (LDR), with part of that package a pollution prevention program. He said it seems that EMS with VPP and IMS all work together.
  - A committee member commented that the contractors should realize that safety training is an investment. Doug Shoop agreed and noted that private industry has had an integrated management system and every \$1 invested recoups as \$7 or \$8.
  - The committee was pleased that DOE recognizes that it is not yet finished with ISMS.
  - A committee member emphasized the importance of understanding that which regulations are applied depends on work scope and will not be identical for all contracts.
  - Where does the HAB fit into this process? Doug Shoop thinks it is helpful for the HAB to monitor ISMS and provide feedback.
  - The committee requested clarification of DOE Regulation 440.1 being changed from standards-based to contractually-based for Bechtel. Specifically, the committee was concerned whether employees would be subjected to health risks, and how the Employee Job Task Analysis (EJTA) process fits in. Al Hawkins explained that the vitrification project was originally going to be privatized, so the Nuclear Regulatory Commission (NRC) was going to regulate for radiological safety and the Occupational Safety and Health Administration (OSHA) was going to regulate for health and safety. The NRC backed out since it would require a decade to create the regulations, so DOE attempted to regulate the radiological and process safety along NRC lines (half the employees working on this at DOE-ORP are from the NRC). With the new presidential administration, the new Administrator at the Department of Labor changed, so OSHA decided it would not regulate the project. DOE found itself in a situation to meet those regulations, but the regulators had disappeared. So DOE wrote a contract amendment to include the bulk of DOE Regulation 440.1 in Bechtel's contract. There is an assessment of hazards and before any operation, all people involved have to go through and sign the start card. Essentially, 440.1 is not imposed on Bechtel by

- contract, but the entire content of 440.1 is in their contract. The nomenclature may differ, but the worker protection features are included.
- The committee discussed whether the Bechtel contract includes adequate hazards exposure and how best to determine that workers are adequately protected and informed. Al Hawkins offered to meet with Tim Takaro about his specific needs.
- Kelly Elsethagen, Ecology, inquired about a recent survey of safety culture and
  whether some workers felt like they could not report hazards. Keith Benguiat
  answered that the population, percentages and disciplines were not captured in the
  report and were described as "representative population of different levels." Julie
  Goeckner, DOE-RL, could provide specific data.
- Joe Richards expressed encouragement to DOE regarding ISMS. He would like to ensure that part of management's commitment to this program, as it contributes to the whole effectiveness of this program, is the training that takes place. Management must make time for training with workers in Pollution Prevention Waste Minimization Concepts. The training can't slide by because of budget cuts.
- A committee member felt encouraged that DOE and the contractors recognize
  they still face challenges in implementing ISMS, which is why he would like to
  hear from the contractors

The committee agreed that Tim Takaro has issue manager work to do regarding the Bechtel contract. DOE suggested a meeting between him, Bechtel, and ORP about his concerns. After that meeting, Tim Takaro can report back to the committee and it can be decided whether a presentation or further discussion is necessary. This may be a cross cutting issue with the Tank Waste Committee.

## **Central Plateau**

Penny Mabie, EnviroIssues, reminded the committee that the September HAB meeting had included discussion about how the HAB would organize itself to address the Central Plateau issue, since the HAB has a desire to design a process that may or may not overlay existing HAB structure. The Central Plateau Risk Framework group factors into this, but the HAB does not consider the work so far – white papers, workshops, and presentations – as the be-all, end-all of work on the Central Plateau. In addition, the HAB will not issue advice on the Central Plateau end states, but instead is asking which values should be considered as the agencies determine end states. The first step is for the HAB to develop the process to identify what information is needed, what perspectives should be included, and how much the committees need to know. Then the HAB can consider what it needs the HSEP committee to do.

For October committee week, HAB Chair Todd Martin had asked all the committees for: 1) questions that need to be answered about the subject, 2) what are the specific areas of concern in the Central Plateau that HSEP thinks need to be considered in the broader discussion, and 3) define work the committee has done or is doing on the Central Plateau. This information will be presented during the Executive Issue Managers Group (EIMG) conference call to structure the November full HAB meeting where the bigger discussion will take place.

Dan Simpson encouraged HSEP members to attend the next day's River and Plateau (RAP) Committee meeting to hear the presentation on the Central Plateau Risk Framework effort by Moses Jarassiyi. He explained that he and Gordon Rogers, as issue managers for the Central Plateau in the RAP committee had met with the Risk Framework group before it had written the three white papers on geography, chronology, and risk in the Central Plateau. The TPA agencies are working on this group with Moses; the focus is more on process than the technical aspects and they consider it a follow up to the Future Site Uses Working Group (FSUWG).

#### Committee Discussion

- The committees talked about values to consider. From the perspective of the tribes, it is crucial to understand ecological values and, for example, that no monetary value can be placed on salmon. In addition, the problem with sustainability is that although no further harm is committed, neither is the land restored to its original condition. The tribes also have cultural values and sites to consider. A committee member advocated developing a systematic approach to comparing values, for example, the trade offs between how cleanup work compared to exposure, especially since the many wastes in the Central Plateau are unknown. This should also include consideration of the risk to the public, and risk of ecological damage.
- There was a discussion of technology development to shrink the footprint of Hanford. This involves trades offs between investing in immediate cleanup or future technology. Keith Benguiat, DOE-RL, commented that from a practical perspective of managing contracts, it is best to select contractors who can bring the appropriate technology to the site.
- A committee member advocated for the development of technology that would find a use for the waste.
- The committee discussed the best use of the site's resources, which includes the aging workforce and land.

Below is the complete list of the questions, concerns, and work in progress/completed for the HSEP committee.

#### Concerns

- Ecological values included in ROD's
- Protect vs. restore
- What is the systematic approach to comparing values
- Trade-offs of worker exposure vs. how clean to clean to
- How deal with the unknowns & protecting workers, i.e. training
- Technology development, re: un-invented yet limits of current technology
- Length of responsibility
- Regulatory environment which regulations apply
- Cultural values, sites
- Risks to public
- · Ecological risks

- How to manage current processes to leave as future resources (i.e. glass logs) & future technologies
- Infrastructure what will it look like in the future
- Trade-offs, re: time, money, ALARA (worker, public, environment)
  - o What strategies are there to address the trade-offs?

#### **Questions**

- What is the best use of resources?
- What are recommendations for future technology research?
- What are validated techniques for exploring trade-offs?
- Risk assessment standards?
- Common definitions
  - End states
  - o End points
  - Risk assessment
  - o Risk management

#### **Committee Work**

- ISMS
- Environmental protection
  - o Pollution. Prevention/ waste minimization
  - o Chemical Management Systems

## **Work Planning**

The Hazardous Materials Management and Emergency Response (HAMMER) issue is in the monitoring phase, but the issue manager expressed concern that there is still a tendency for certain contractors to dilute safety training.

The committee continued its discussion of which issues are clearly within its work scope. A committee member commented that the HSEP committee deals with ongoing operations and their impact on the environment and the health and safety of the workers. Dan Simpson did not think the work scope was quite that focused and could include an examination of the final condition of the site so ecological and risk levels would be acceptable. Another committee member commented that worker safety does not overlap with the work plan for any other committee, although the Tank Waste or RAP committees can address environmental protection.

Issue managers will also look into presentations from the DNFSB about its role in ISMS assessment and from a Hanford Atomic Metals Trade Council (HAMTC) representative about ISMS. The committee requested Barb Wise to check whether Phil Loscoe's new role is related to safety. Additionally, Jerry Bell, DOE-RL, might be a resource to discuss ISMS assessments. The committee was also interested in a presentation from contractor ISMS representatives. Barb Wise encouraged the committee to discuss whether they wanted to hold a panel with site representatives at a spring HAB meeting, and how that panel should be framed.

The committee reviewed its work plan. HAMMER is in monitoring mode, worker health and safety policy issues are underway except the robust health screening program (Keith will check in with Tim). On the Environmental Protection issue, Joe Richards announced

that of the policy issues and to do list, he would like to focus on Pollution Prevention Waste Minimization and the Chemical Management System. He would like an update that includes an explanation of how the environment is protected from cleanup that uses chemicals. Since the site infrastructure, specifically the electrical distribution system, will become an issue, Keith Smith will do some work on it. Gariann Gelston will be the issue manager for Risk Assessment. Susan May, Jim Trombold, and Joe Richards will assist her.

In summary, the committee is working on ISMS, Environmental Protection, Risk Assessment, and Site Infrastructure. The committee will also see if any pertinent issues arise from the November HAB meeting.

The next committee call is on Tuesday, October 16<sup>th</sup> at 2 pm. The next Executive Issues Management Group (EIMG) call is on Wednesday, October 17<sup>th</sup> at 3pm. Dan Simpson and Keith Smith will represent HSEP on the call.

## **Handouts**

- Framing of the ISMS Discussion for October 9 Health, Safety & Environmental Protection Committee, October 9, 2001
- Richland Operations Office Integrated Safety Management Overview to NRC Regional Administrator for Region 2, Shirley J. Olinger (Assistant Manager for Safety and Engineering), September 18, 2001
- Health, Safety, and Environmental Protection Committee Draft Meeting Summary v.2, June 13, 2001
- Health, Safety, and Environmental Protection Committee Draft Meeting Agenda, October 9, 2001
- Memorandum Secretarial Environment, Safety and Health (ES&H) Policy, DOE-RL, May 10, 1998
- Memorandum to All Department and Contractor Employees Safety-Accountability and Performance, Bill Richardson, March 3, 1999
- Memorandum Implementation of Integrated Safety Management, T. J. Glauthier, October 25, 1999
- Letter to Charles Clarke Multi-Media Inspection of the Hanford Site: Status of Actions Taken by the U.S. Department of Energy, Richland Operations Office (RL) and its Contractors, John D. Wagoner, August 18, 1998

## **Attendees**

## **HAB Members and Alternates**

Jim Curdy	Gariann Gelston	Joe Richards
Dan Simpson	Keith Smith	John Stanfill
Jim Trombold (phone)		

## **Others**

Kent Benguiat, DOE-RL	Kelly Elsethagen, Ecology	Nancy Myers, BHI
Al Hawkins, DOE-ORP		John Carlson, BNI
William Smoot, DOE-ORP		Kim Ballinger, Critique, Inc.
		Penny Mabie, EnviroIssues
		Christina Richmond,
		EnviroIssues
		Gloria Cummins, FH
		Barb Wise, FH
		Sharon Braswell, Nuvotec
		Peter Bengtson, PNNL
		Susan May, WDOH